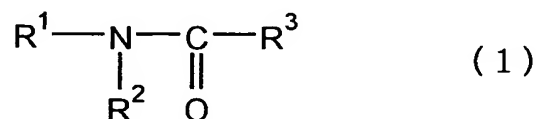


CLAIMS

1. A chemically amplified resist composition comprising:

- 5 a resin which becomes soluble in an aqueous alkali solution in the presence of an acid,
a photo acid generator, and
an amine derivative which shows, in water of 25°C, such a basicity as to form a conjugate acid and
10 has a medium polarity.

2. A chemically amplified resist composition according to Claim 1, wherein the amine derivative is an amide compound represented by the following
15 general formula (1):



(wherein R¹, R² and R³ are each independently hydrogen or an alkyl group having 1 to 30 carbon atoms).

- 20 3. A chemically amplified resist composition according to Claim 2, wherein in the general formula (1), at least two of R¹, R² and R³ bond to each other to form a cyclic skeleton.

4. A chemically amplified resist composition according to Claim 2, wherein in the general formula (1), at least one of R¹ and R² is a cyclic alkyl group having 3 to 30 carbon atoms.

5

5. A chemically amplified resist composition according to one of Claims 1 to 4, wherein the amine derivative is a basic compound which forms a conjugate acid having a pKa of -3 to 3, in water of 10 25°C.

6. A chemically amplified resist composition according to one of Claims 1 to 4, wherein the amine derivative is a basic compound which has such a 15 polarity as to give a water-octanol partition coefficient (Log P) of 0 to 1.5 at 25°C.

7. A chemically amplified resist composition according to Claim 1, wherein the resin soluble in an 20 aqueous alkali solution in the presence of an acid is a polymer comprising a (meth)acrylic acid ester monomer unit having an alicyclic skeleton, and a (meth)acrylic acid ester monomer unit having a lactone skeleton.

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8. A chemically amplified resist composition
according to Claim 7, wherein the (meth)acrylic acid
ester monomer unit having the alicyclic skeleton is
at least one kind selected from the group consisting
5 of cyclohexyl (meth)acrylate, isobornyl
(meth)acrylate, adamantyl (meth)acrylate,
tricyclodecanyl (meth)acrylate, dicyclopentadienyl
(meth)acrylate, and their derivatives formed by
introducing a substituent onto the alicyclic ring of
10 the monomer unit.

9. A chemically amplified resist composition
according to Claim 7, wherein the (meth)acrylic acid
ester monomer unit having the lactone skeleton is at
15 least one kind selected from the group consisting of
(meth)acrylates having a δ -valerolactone ring,
(meth)acrylates having a γ -butyrolactone ring, and
their derivatives formed by introducing a substituent
onto the lactone ring of the monomer unit.

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10. A chemically amplified resist composition which
gives a threshold resolution of 0.15 micron or less,
when the resist composition is coated on bare
silicon to form a resist of 0.5 micron in thickness,
25 a light of 193 nm emitted from an argon fluorine

~~excimer laser is applied to the resist at an exposure~~
of 5 mJ/cm² or less through a mask having a pattern
of line/space = 1/1 to project the pattern to the
resist in 1/4 reduction, and the resulting resist is
5 heat-treated at 120°C for 60 seconds and subjected to
development with a 2.38 mass % aqueous
tetramethylammonium hydroxide solution of 23°C for 60
seconds.

- 10 11. A chemically amplified resist composition which
gives a line width difference between resist top and
resist bottom, of 10% or less, in a resist pattern of
0.12 micron formed,

when the resist composition is coated on bare
15 silicon to form a resist of 0.5 micron in thickness,
a light of 193 nm emitted from an argon fluorine
excimer laser is applied to the resist at an exposure
of 5 mJ/cm² or less through a mask having a pattern
of line/space = 1/1 to project the pattern to the
20 resist in 1/4 reduction, and the resulting resist is
heat-treated at 120°C for 60 seconds and subjected to
development with a 2.38 mass % aqueous
tetramethylammonium hydroxide solution of 23°C for 60
seconds.